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# DPV74TLUX

960H IR Vandal Dome Camera

# Instruction Manual

English Version 1.0

**www.digimerge.com**
**www.flir.com/security**

# Important Safety Instructions

1) Read these instructions.
2) Keep these instructions.
3) Heed all warnings.
4) Follow all instructions.
5) Do not use this apparatus near water.
6) Clean only with dry cloth.
7) Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet. Consult an electrician for replacement of the obsolete outlet.
10) Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11) Only use attachments/accessories specified by the manufacturer.
12) Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

13) Unplug this apparatus during lightning storms or when unused for long periods of time.
14) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been moisture, does not operate normally, or has been dropped.

The lightning flash with an arrowhead symbol, within an equilateral triangle is intended to alert the user to the presence of uninsulated dangerous voltage within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

In USA and Canada, Use Class 2 Power Supply Only

**INFORMATION** - This equipment has been tested and found to comply with limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.
Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

**WARNING** - Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

**WARNING :** To prevent electric shock and risk of fire hazards:
- ◆ Do NOT use power sources other than that specified.
- ◆ Do NOT expose this appliance to rain or moisture.

**WARNING** - The apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.

This installation should be made by a qualified service person and should conform to all local codes.

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# General Features

- 1/3" Sony EX-View™ II 960H
- UL standard 60065 Approved
- Built-in video balun (UTP)
- Up-the-coax (UTC) OSD via UTC controller*
- Polaris Vision2 low light viewing
- Smart-IR Night Vision (100ft/31m) with Adjustable LED Power Level
- 3.5-16mm Auto Iris D/N Varifocal Lens
- True Day Night with ICR (TDN)
- IP67 Weatherproof rated and Vandalproof
- Advanced 3D Digital Noise Reduction (3D-DNR)
- ArcticPro technology for harsh climates with Cold Starter (minimum operating temperature -40°F)
- Precise zoom / focus adjustment with included adjustment tool
- Privacy Masking / Motion Detection
- 24V AC Operation
- Service Monitor Output
- Full 90° tilting angle, surface and flush mountable

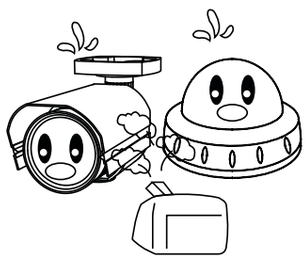
* UTC controller accessory sold separately

# Precautions

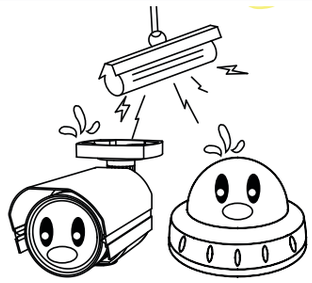
**Do not install the camera in extreme temperature conditions.**

Only use the camera in environments between -40°C and +50°C.

**Do not install or use the camera in an environment where the humidity is high.**

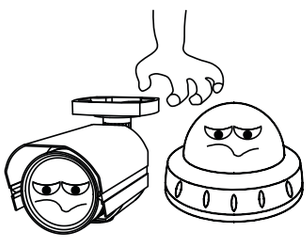


**Do not install the camera under unstable lighting conditions.**



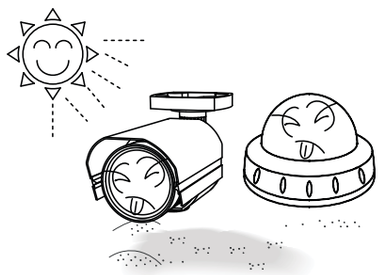
Severe lighting change or flicker can cause the camera to work improperly.

**Do not touch the front lens of the camera.**



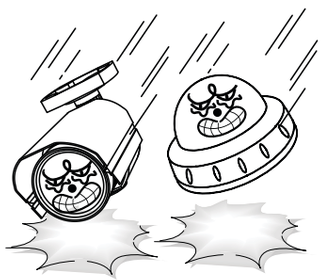
This is one of the most important parts of the camera. Be careful not to leave fingerprints on the lens cover.

**Never keep the camera pointed directly at strong light.**

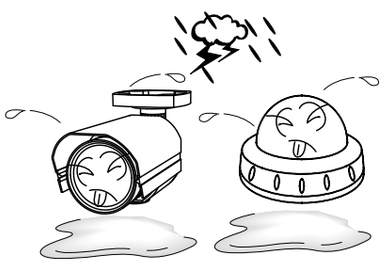


It can cause malfunctions to occur.

**Do not drop the camera or subject it to physical shocks.**

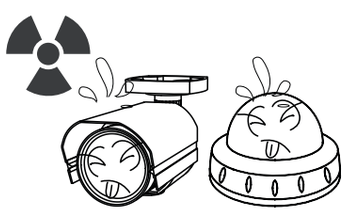


**Do not expose the camera to rain or spill liquids on it.**



If it gets wet, wipe dry immediately. Liquids can contain minerals that corrode the electronic components.

**Do not expose the camera to radioactivity.**



If exposed to radioactivity the CCD will fail.

**NOTE**

- If the camera is exposed to spotlight or strong lighting, smear or blooming may occur.
- Please check that the power satisfies the requirements listed in the Specifications before connecting the camera.

# Safety Instructions

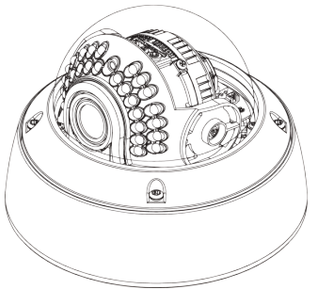
## Safety precautions

- This camera should be installed by qualified personnel only.
- There are no user serviceable parts inside. Do not disassemble the camera.
- Use an appropriate low voltage power cable to prevent fire or electrical shock.
- Please ensure that your installation area can support the weight of the camera.

## Please handle this camera carefully

- Do not use a strong or abrasive detergent when cleaning the camera.
- Do not expose the camera to direct sun.
- Do not install the camera in high humidity environments.
- Do not install the camera near cooling or heating devices.

# Package Contents

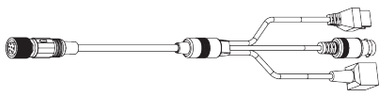


Camera (x1)

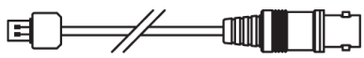
Tapping Screw
4x25 (x4)

Machine Screw
M4x10 (x3)

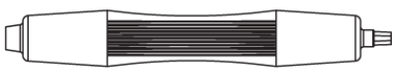
Allen Key (x1)



Camera Termination
Cable (x1)

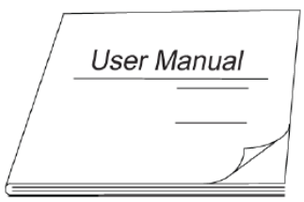


Test Video Cable (x1)

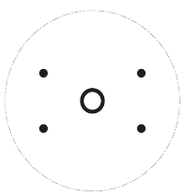


Zoom / Focus
Adjustment Tool (x1)

Flush Mounting
Template (x1)




Instruction Manual (x1)



Surface Mounting
Template (x1)

**Accessories -**

- **MNTV74J** - Junction box mount.
- **MNTV74W** - Wall mount.
- **MNTV74C** - Ceiling Mount.
- **ACCUTC1** - UTC Controller.

Contact your distributor for details.

# Installation

Do not remove the protective film on the dome cover until the installation is completed.

## Surface Mount

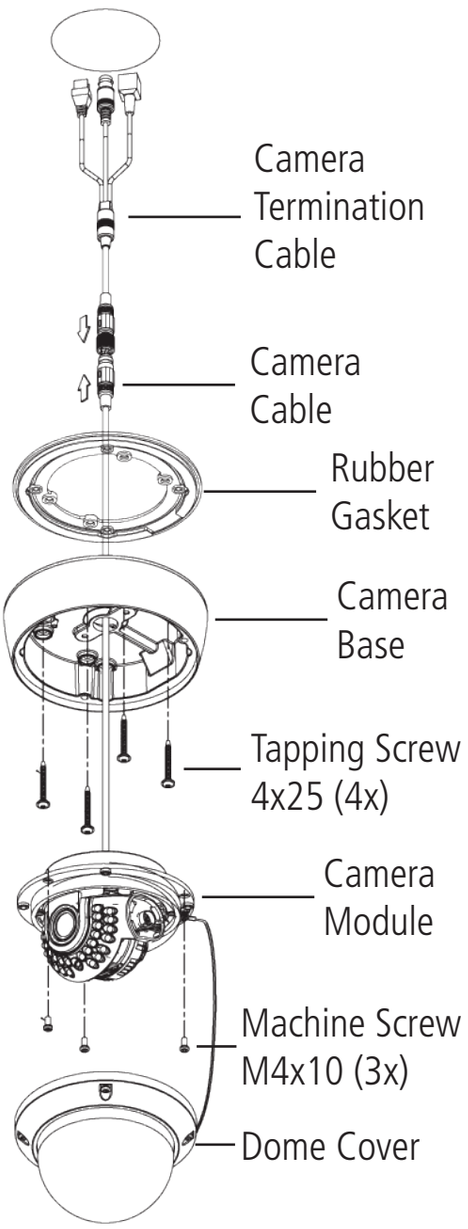
1. Use the included surface mounting template to drill holes for the cable and mounting screws.
2. Run the extension cables through the surface and connect the camera termination cable to the extension cable.
3. Run the camera termination cable through the camera base.

**NOTE**

If running the cable through the side conduit (side conduit is 1/4" diameter), perform the following instead of steps 2 and 3:
a. Remove the rubber gasket under the camera base.
b. Unscrew the side conduit cap using a flat-head screwdriver or coin.
c. Run the camera cable through the side conduit hole. Connect the camera termination cable to the camera cable outside the camera housing.
d. Replace the rubber gasket.

4. Attach the camera base to the surface using the tapping screw 4x25 (4x).

Ensure the rubber gasket is firmly attached to the camera base to ensure the weatherproof rating of the camera.

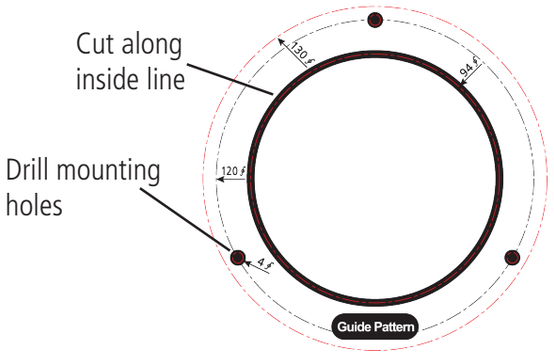



5. Use the included allen key to loosen the dome cover screws (3x) and then remove the dome cover from the camera module.
6. Connect the camera termination cable to the camera cable. Push the cable connection point through the camera base into the surface.
7. Attach the camera module to the camera base using the machine screws M4x10 (3x).

**Go to "Adjusting the Camera" on page 11.**

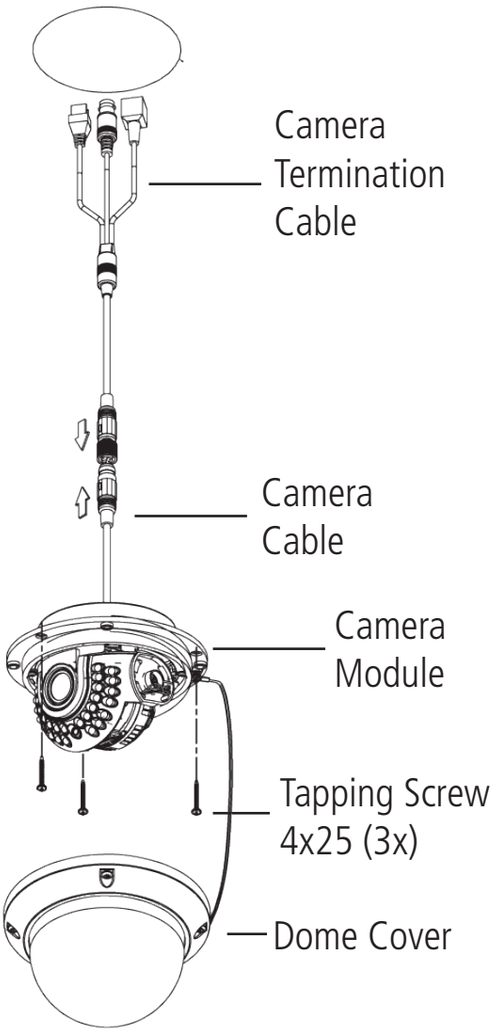
## Flush Mount

1. Cut a hole in the ceiling using the inside line of the included flush mounting template. Drill holes as marked on the template.




**Flush Mounting Template**

2. Run the extension cables through the ceiling and connect the camera termination cable to the extension cable.
3. Connect the camera cable to the camera termination cable inside the ceiling.
4. Use the included allen key to loosen the dome cover screws (3x) and then remove the dome cover.
5. Attach the camera module to the ceiling using the tapping screw 4x25 (3x).



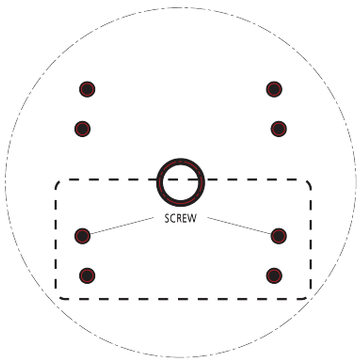

**Go to "Adjusting the Camera" on page 11.**

## Junction Box Installation

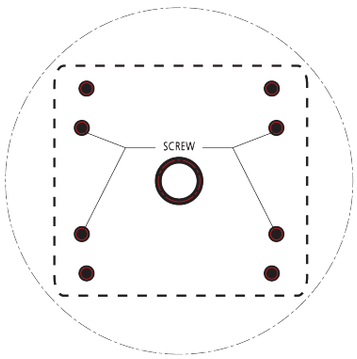
The camera is compatible with 2S and Two Gang junction boxes.

### To install the camera to a junction box:

1. Connect the camera termination cable to the extension cables inside the junction box.
2. Run the camera termination cable through the camera base.
3. Attach the camera base to the junction box according to the junction box type used (see below).




2S Junction Box
(requires 2x screws)

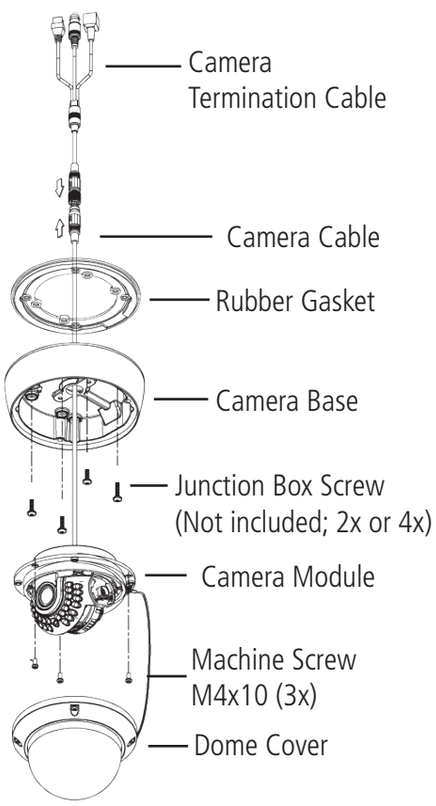



Two Gang Junction Box
(requires 4x screws)

**NOTE:** Screws are not provided for junction box installation.

> Ensure the rubber gasket is firmly attached to the camera base to ensure the weatherproof rating of the camera.

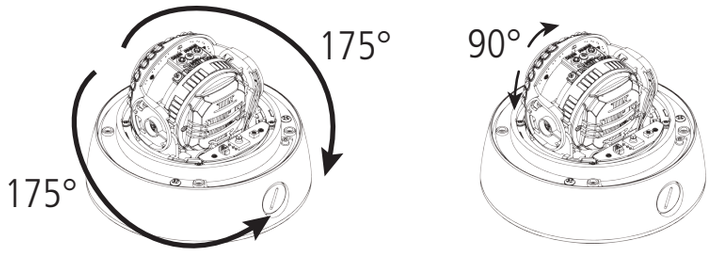
4. Connect the camera cable to the termination cable and push the cable connection point through the camera base into the junction box.
5. Use the included allen key to loosen the dome cover screws (3x) and then remove the dome cover from the camera module.
6. Attach the camera module to the camera base using the machine screws M4x10 (3x).




**Go to "Adjusting the Camera" on page 11.**

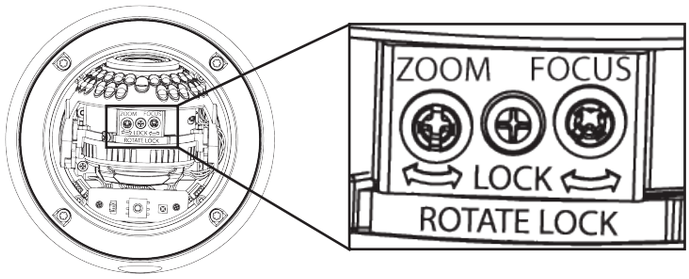
# Adjusting the Camera

1. With the dome cover removed, you can adjust the camera viewing angle, zoom/focus, LED level, and OSD.
   - (Optional) Connect the included video test cable to the **Video Test** connector to output the video to a BNC test monitor.
   - To adjust the viewing angle of the camera, tilt the lens up and down (up to 90°) or hold the sides of the lens and twist the camera around up to 175° in either direction (up to 350°).




**NOTE:** There is a stopper to prevent the camera from twisting beyond the limits of the internal cables. Do not try to twist the camera past the stopper.

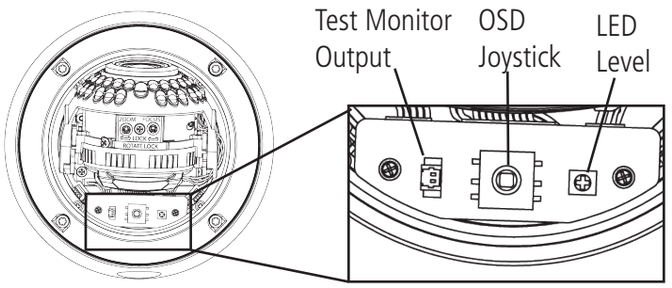
   - To adjust the zoom / focus, loosen the middle **Lock** screw with a philipshead screwdriver. Then turn the **Zoom** and **Focus** screws using the included zoom/focus adjustment tool or with a small philipshead screwdriver. Make sure to re-tighten the Lock screw when finished adjusting the lens.




   - To adjust the power output to the IR LEDs, use a small philipshead screwdriver to turn the **LED Level** screw left to decrease the output or right to increase the output. It is recommended to fine tune the IR level during low light conditions to determine the best setting.

**NOTE:** By default, the IR LEDs are set for maximum output. For short-range installation environments, it is recommended to turn down the LED level.

   - For details on adjusting the OSD menu, see "How to Set Up the Camera Menu" on page 13.

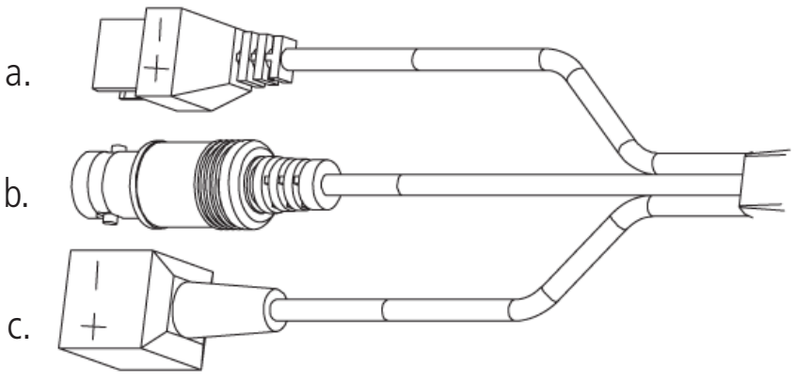



**NOTE:** OSD menu can also be controlled using a UTP controller (Pelco C protocol; accessory model number: ACCUTC1).

2. Replace the dome cover and tighten the dome cover screws (3x).
3. Remove the protective film from the dome cover.

# Connection

This camera supports 24V AC power only.




a. **Power:** Connect the camera to a 24V AC power source.

b. **BNC Video:** Connect the camera to the video cable. You can also control the camera OSD over the video cable using a UTC controller (Pelco C protocol).

**OR**

c. **UTP Video:** Connect the camera to a video balun using one pair from a UTP cable (for example, Cat 5). Make sure to match the correct polarity as marked on the balun.

# How to Set Up the Camera Menu

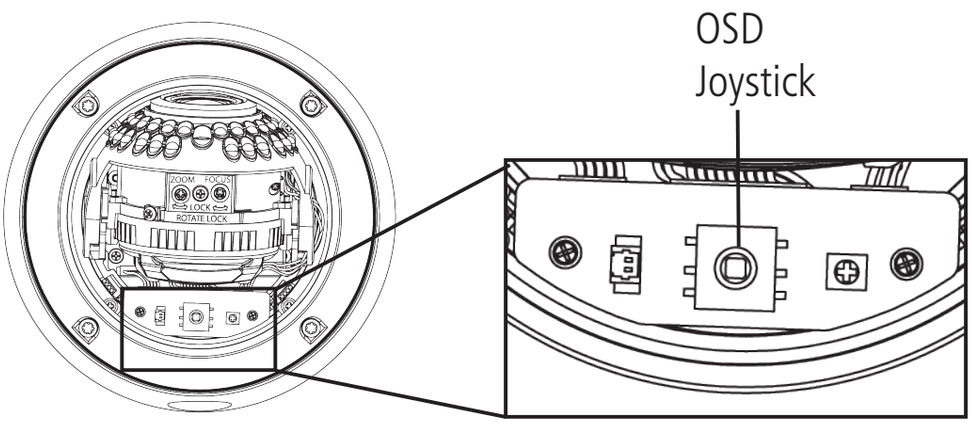
Use the camera menu to configure image quality and other camera settings.

**To access the camera menu:**

1. Use the included allen key to loosen the dome cover screws (3x) and remove the dome cover from the camera.

   **OR** Connect a UTC controller (Pelco C protocol) to the video cable and continue running the cable to the DVR or monitor.

2. Press and hold the **Set Up** (middle) button to open the OSD menu.
   - Press **Up/Down** to move the menu cursor up and down and select menu items.
   - Press **Left/Right** to move the menu cursor left and right and adjust the selected menu item.
   - Press the **Set Up** button to open sub-menus or confirm selections.
3. When you are finished making changes to the menu, select **Exit** and press **Set Up**.




**NOTE**

- Arrow icon ( ↵ ) indicates sub-menu is available.
- **You must Exit the OSD menu to save menu changes. Otherwise, changes will not be saved if there is a power failure.**
- To save changes, return to the main OSD menu, select **EXIT**, and press the **Set Up** button. Or, in sub-menus, select **SAVE&END** and press **Set Up** to save changes and exit the OSD menu.

# Menu Tree

| SET UP MENU | DEFAULT SET | MENU | | | |
|---|---|---|---|---|---|
| LENS | DC | BRIGHTNESS | 0~100 Level Selectable | | |
| | | MODE | INDOOR | | |
| | | | OUTDOOR | | |
| | | RETURN | RET | | |
| | | | SAVE&END | | |
| EXPOSURE | SHUTTER | x2, x4, x6, x8, x10, x12, x14, x16, x24, x32, x64, x128, x256, AUTO, 1/60, FLK, 1/250, 1/500, 1/1000, 1/2000, 1/5000, 1/10000, 1/20000, 1/50000 1/100000 | | | |
| | AGC | OFF | | | |
| | | LOW | | | |
| | | MIDDLE | | | |
| | | HIGH | | | |
| | SENSE-UP | AUTO | SENSE-UP(x2 ~ x256 Level Selectable) | | |
| | | | RETURN | RET | |
| | | | | SAVE&END | |
| | | OFF | | | |
| | BLC | OFF | | | |
| | | BLC | VALUE | LOW | |
| | | | | MIDDLE | |
| | | | | HIGH | |
| | | | AREA | POSITION | |
| | | | | SIZE | |
| | | | | AGAIN | |
| | | | DEFAULT | | |
| | | | RETURN | RET | |
| | | | | SAVE&END | |
| | | HSBLC | GAIN | 0 ~ 8 Level Selectable | |
| | | | MODE | ALL DAY | |
| | | | | NIGHT ONLY | |
| | | | DEFAULT | | |
| | | | RETURN | RET | |
| | | | | SAVE&END | |
| | D-WDR | OFF | | | |
| | | INDOOR | LOW LEVEL | 0 ~ 15 Level Selectable | |
| | | | HIGH LEVEL | 0 ~ 15 Level Selectable | |
| | | | RETURN | RET | |
| | | | | SAVE&END | |
| | | OUTDOOR | LOW LEVEL | 0 ~ 15 Level Selectable | |
| | | | HIGH LEVEL | 0 ~ 15 Level Selectable | |
| | | | RETURN | RET | |
| | | | | SAVE&END | |
| | RETURN | RET | | | |
| | | SAVE&END | | | |
| WHITE BAL | ATW | | | | |
| | AWB | | | | |
| | AWC->SET | | | | |
| | MANUAL | BLUE | 0 ~100 Level Selectable | | |
| | | RED | 0 ~100 Level Selectable | | |
| | | RETURN | RET | | |
| | | | SAVE&END | | |
| DAY/NIGHT | COLOR | | | | |
| | B/W | BURST | ON/OFF | | |
| | | IR SMART | ON | VALUE | 0 ~ 100 Level Selectable |
| | | | | AREA | POSITION |
| | | | | | SIZE |
| | | | | | RET/AGAIN |
| | | | | IR DWDR | OFF / 1~15 Level Selectable |
| | | | | RETURN | RET |
| | | | | | SAVE&END |
| | | | OFF | | |
| | | RETURN | RET | | |
| | | | SAVE&END | | |
| | AUTO | DELAY | 0 ~15 Level Selectable | | |
| | | D --> N (AGC) | 0 ~ 255 Level Selectable | | |
| | | N --> D (AGC) | 0 ~ 255 Level Selectable | | |
| | | RETURN | RET | | |
| | | | SAVE&END | | |
| | EXT | START DELAY | 0 ~15 Level Selectable | | |
| | | END DELAY | 0 ~15 Level Selectable | | |
| | | RETURN | RET | | |
| | | | SAVE&END | | |

# Menu Tree (Continued)

| | | | | | |
|---|---|---|---|---|---|
| 3DNR | OFF | | | | |
| | ON | LEVEL | 1 ~ 200 Level Selectable | | |
| | | RETURN | RET | | |
| | | | SAVE&END | | |
| SPECIAL | CAM TITLE | ON | | | |
| | | OFF | | | |
| | D-EFFECT | FREEZE | ON/OFF | | |
| | | MIRROR | MIRROR | | |
| | | | V-FLIP | | |
| | | | ROTATE | | |
| | | | OFF | | |
| | | D-ZOOM | ON | RANGE | x1 ~ x32 Selectable |
| | | | | PAN | -100 ~ 100 Selectable |
| | | | | TILT | -100 ~ 100 Selectable |
| | | | | RETURN | RET |
| | | | | | SAVE&END |
| | | | OFF | | |
| | | SMART DZOOM | OFF | | |
| | | | ON | RANGE | x2 ~ x5 Selectable |
| | | | | POSITION | LEFT/RIGHT/UP/DOWN |
| | | | | SENSITIVITY | 0 ~ 100 Level Selectable |
| | | | | TIME | 0 ~ 15 Level Selectable |
| | | | | RETURN | RET |
| | | | | | SAVE&END |
| | | DIS | ON/OFF | | |
| | | NEG. IMAGE | ON/OFF | | |
| | | RETURN | RET | | |
| | | | SAVE&END | | |
| | MOTION | ON | AREA | 1 ~ 4 Selectable | |
| | | | AREA DISPLAY | ON | POSITION |
| | | | | | SIZE |
| | | | | | RET/AGAIN |
| | | | | OFF | |
| | | | VALUE | 0 ~ 100 Level Selectable | |
| | | | MOTION VIEW | ON/OFF | |
| | | | RETURN | RET | |
| | | | | SAVE&END | |
| | | OFF | | | |
| | PRIVACY | ON | AREA | 1 ~ 8 Selectable | |
| | | | AREA DISPLAY | ON | TOP LEFT |
| | | | | | TOP RIGHT |
| | | | | | BTM LEFT |
| | | | | | BTM RIGHT |
| | | | | | POSITION |
| | | | | | RET/AGAIN |
| | | | | OFF | |
| | | | COLOR | 1 ~ 15 Selectable | |
| | | | TRANSPAR | 0 ~ 3 Selectable | |
| | | | RETURN | RET | |
| | | | | SAVE&END | |
| | | OFF | | | |
| | DEFECT | SENSEUP | x4 ~ x128 Level Selectabl | | |
| | | DIFF | 0 ~ 3 Level Selectable | | |
| | | THRESHOLD | 0 ~ 4 Level Selectable | | |
| | | START | | | |
| | | RETURN | RET | | |
| | | | SAVE&END | | |
| | DEFOG | OFF | | | |
| | | MANUAL | LEVEL | 0 ~ 31 Level Selectable | |
| | | | COLOR GAIN | 0 ~ 10 Level Selectable | |
| | | | EDGE GAIN | 0 ~ 10 Level Selectable | |
| | | | GAMMA | USER, 0.05 ~ 1.00 Level Selectable | |
| | | | RETURN | RET | |
| | | | | SAVE&END | |
| | | AUTO | DETECT LEVE | 0 ~ 5 Level Selectable | |
| | | | RETURN | RET | |
| | | | | SAVE&END | |
| | RETURN | RET | | | |
| | | END | | | |

# Menu Tree

| | | | | |
|---|---|---|---|---|
| ADJUST | SHARPNESS | 0 ~ 31 Level Selectable | | |
| | MONITOR | LCD | GAMMA | USER, 0.05 ~ 1.00 Level Selectable |
| | | | LEVEL | 0 ~ 63 Level Selectable |
| | | | BLUE GAIN | 0 ~ 255 Level Selectable |
| | | | RED GAIN | 0 ~ 255 Level Selectable |
| | | | RETURN | RET |
| | | | | SAVE&END |
| | | CRT | LEVEL | 0 ~ 63 Level Selectable |
| | | | BLUE GAIN | 0 ~ 255 Level Selectable |
| | | | RED GAIN | 0 ~ 255 Level Selectable |
| | | | RETURN | RET |
| | | | | SAVE&END |
| | | USER | GAMMA | USER, 0.05 ~ 1.00 Level Selectable |
| | | | LEVEL | 0 ~ 63 Level Selectable |
| | | | BLUE GAIN | 0 ~ 255 Level Selectable |
| | | | RED GAIN | 0 ~ 255 Level Selectable |
| | | | RETURN | RET |
| | | | | SAVE&END |
| | RETURN | RET | | |
| | | SAVE&END | | |
| RESET | FACTORY | RESET | | |
| | RETURN | RET | | |
| | | SAVE&END | | |
| EXIT | | | | |

# Default Settings

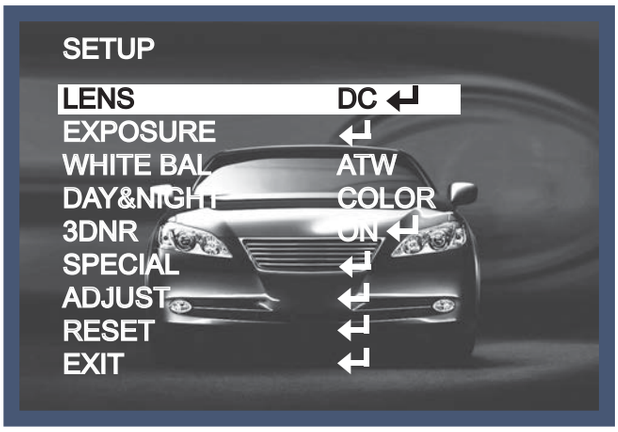
| Setting | Default Value |
|---|---|
| Lens -> DC -> Brightness | 50 |
| Lens -> DC -> Mode | Indoor |
| Exposure -> Shutter | 1/60 |
| Exposure -> Brightness | 50 |
| Exposure -> AGC | Middle |
| Exposure -> Sense-Up | X32 |
| Exposure -> BLC | Off |
| Exposure -> BLC -> BLC -> Value | Middle |
| Exposure -> BLC -> HSBLC -> Gain | 8 |
| Exposure -> BLC -> HSBLC -> Mode | All Day |
| Exposure -> D-WDR | Off |
| Exposure -> Indoor -> Low Level | 4 |
| Exposure -> Indoor -> High Level | 11 |
| Exposure -> Outdoor -> Low Level | 0 |
| Exposure -> Outdoor -> High Level | 0 |
| White Bal | ATW |
| White Bal -> Manual -> Blue | 28 |
| White Bal -> Manual -> Red | 16 |
| Day&Night | EXT |
| Day&Night -> EXT -> Start Delay | 5 |
| Day&Night -> EXT -> End Delay | 2 |
| Day&Night -> B/W -> Burst | Off |
| Day&Night -> B/W -> IR Smart | On |
| Day&Night -> B/W -> IR Smart -> Value | 50 |
| Day&Night -> B/W -> IR Smart -> IR DWDR | 2 |
| Day&Night -> Auto -> Delay | 5 |
| Day&Night -> Auto -> D --> N (AGC) | 60 |
| Day&Night -> Auto -> N --> D (AGC) | 20 |
| 3DNR | ON |
| 3DNR -> Level | 200 |
| Special -> Cam Title | Off |
| Special -> D-Effect -> Mirror | Off |
| Special -> D-Effect -> D-Zoom | Off |
| Special -> D-Effect -> D-Zoom -> Range | x 2.0 |
| Special -> D-Effect -> D-Zoom -> Pan | 0 |
| Special -> D-Effect -> D-Zoom -> Tilt | 0 |

| Setting | Default Value |
|---|---|
| Special -> D-Effect -> Smart DZoom | Off |
| Special -> D-Effect -> Smart DZoom -> Range | x 2.0 |
| Special -> D-Effect -> Sensitivity | 80 |
| Special -> D-Effect -> Time | 3 |
| Special -> D-Effect -> DIS | Off |
| Special -> D-Effect -> Neg. Image | Off |
| Special -> Motion | Off |
| Special -> Motion -> Area | 1 |
| Special -> Motion -> Area Display | On |
| Special -> Motion -> Value | 80 |
| Special -> Motion -> Motion View | Off |
| Special -> Privacy | Off |
| Special -> Privacy -> Area | 1 |
| Special -> Privacy -> Area Display | On |
| Special -> Privacy -> Color | 10 |
| Special -> Privacy ->Transpar | 3 |
| Special -> Defect -> Sensup | X32 |
| Special -> Defect -> Diff | 2 |
| Special -> Defect -> Threshold | 1 |
| Special -> Defog | Off |
| Special -> Defog -> Manual -> Level | 10 |
| Special -> Defog -> Manual -> Color Gain | 3 |
| Special -> Defog -> Manual -> Edge Gain | 3 |
| Special -> Defog -> Auto -> Detect Level | 3 |
| Adjust -> Sharpness | 25 |
| Adjust -> Monitor | LCD |
| Adjust -> Monitor -> LCD -> Gamma | 0.55 |
| Adjust -> Monitor -> LCD -> Level | 20 |
| Adjust -> Monitor -> LCD -> Blue Gain | 100 |
| Adjust -> Monitor -> LCD -> Red Gain | 100 |
| Adjust -> Monitor -> User -> Gamma | 0.55 |
| Adjust -> Monitor -> User -> Level | 20 |
| Adjust -> Monitor -> User -> Blue Gain | 130 |
| Adjust -> Monitor -> User -> Red Gain | 130 |
| Adjust -> Monitor -> CRT -> Level | 20 |
| Adjust -> Monitor -> CRT -> Blue Gain | 110 |
| Adjust -> Monitor -> CRT -> Red Gain | 110 |

## Lens

The Lens submenu is used to adjust the brightness of the camera.

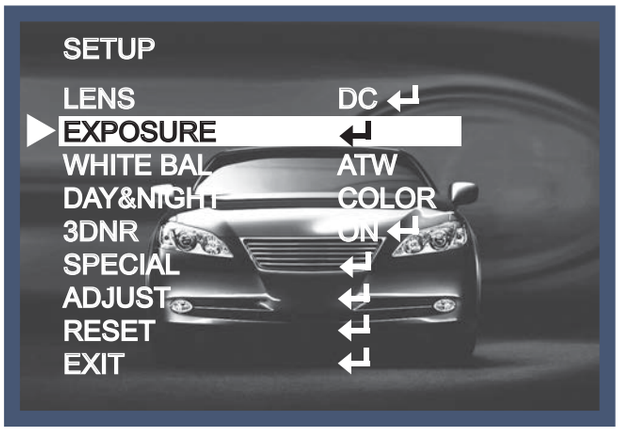
1. Press **Up/Down** to select **LENS** and then press **Set Up**.




2. Press **Up/Down** to select **BRIGHTNESS** and then **Left/Right** to adjust the brightness between 1~100.
3. Press **Up/Down** to select **MODE** and then **Left/Right** to select **INDOOR** or **OUTDOOR** depending on the installation environment.

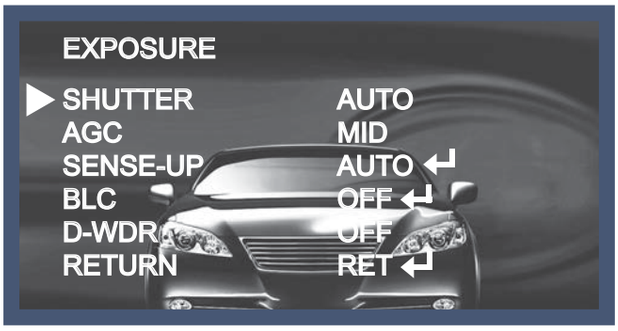
## Exposure

1. Press **Up/Down** to select **EXPOSURE** and then press **Set Up**.



2. Configure the following:

- **Shutter:** Press **Left/Right** to select **AUTO** shutter speed, adjust the shutter speed between 1/60~1/100,000 or 2x~x256, or select **FLK** mode.

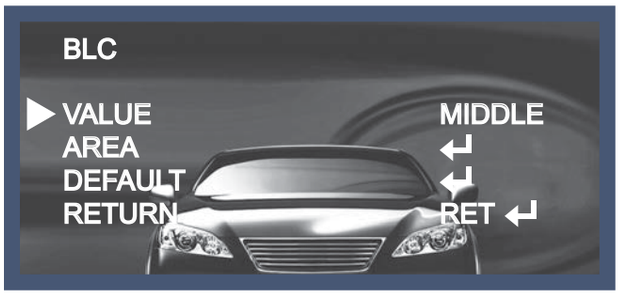



- **AGC (Auto Gain Control):** Press **Left/Right** to adjust AGC. Increasing the AGC level may increase the amount of noise in the image.
  - » **Off:** AGC disabled.
  - » **Low:** 28dB gain applied.
  - » **Mid:** 32dB gain applied.
  - » **High:** 36dB gain applied.
- **Sense-Up:** Press **Left/Right** to enable/disable Digital Slow Shutter (DSS) function. Slow Shutter uses a combination of gain and a reduction in shutter speed to compensate for decreased light levels.
  - » **Off:** DSS disabled.
  - » **Auto:** Enable DSS. Press **Set Up** and then press **Left/Right** to adjust the maximum shutter speed adjustment between 2x~256x.

**NOTE**

- Sense-Up is disabled if Shutter is not set to AUTO or 1/60.
- To limit ghosting effect, it is recommended to select a Sense-Up between 2x and 32x.

- **BLC (Back Light Compensation):** The camera uses auto exposure control to automatically tone down highlighted areas of the image.
  - » **Off:** Disable BLC.
  - » **BLC:** Enable BLC in a user defined area. In this mode, the camera will decrease the brightness in selected areas with highlights. Press **Set Up** to configure the BLC area and level:




    - » **Value:** Set the BLC level: **Low**, **Medium**, or **High**.
    - » **Position:** Set the area where BLC will be applied. Press **Set Up** and press **Left/Right/Up/Down** to adjust the position of the area. Press **Set Up** to confirm the area and then press **Left/Right/Up/Down** to adjust the size of the area. Press **Set Up** to confirm the size and then press **Set Up** again to return to the BLC sub-menu.
    - » **Default:** Press **Set Up** to return the BLC level and area to the default settings.
  - » **HSBLC (Highlight Suppression Back Light Compensation):** HSBLC actively blocks highlighted areas in the image. For example, when there is a car headlight turned on at the entrance of a gas station, the numbers of the car plate may be recognized by blocking the light from the car headlight. Press **Set Up** to configure HSBLC settings:

Normal | HSBLC

» **Gain:** Press **Left/Right** to adjust the gain tolerance between 1~8. The higher this value is, the brighter areas of the image will need to be for the camera to block them.

» **Mode:** Press **Left/Right** to select **ALL DAY** for **HSBLC** to be enabled in both day and night mode or **NIGHT ONLY** for HSBLC to be enabled during night mode only.

» **Default:** Press **Set Up** to return to default HSBLC settings.

- **D-WDR (Digital Wide Dynamic Range):** D-WDR automatically adjusts the light level in parts of the image to overcome strong backlight conditions.

» **Off:** Disable D-WDR.

» **Indoor:** Compensates for typical indoor lighting conditions. Press **Set Up** to adjust the Low Level and High Level for D-WDR.

» **Outdoor:** Compensates for typical outdoor lighting conditions. Press **Set Up** to adjust the Low Level and High Level for D-WDR.

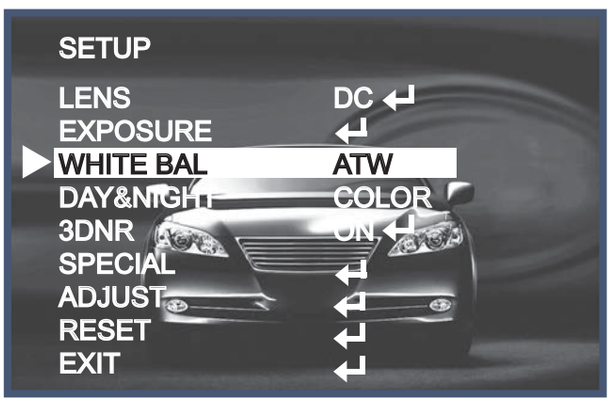
D-WDR OFF

D-WDR ON

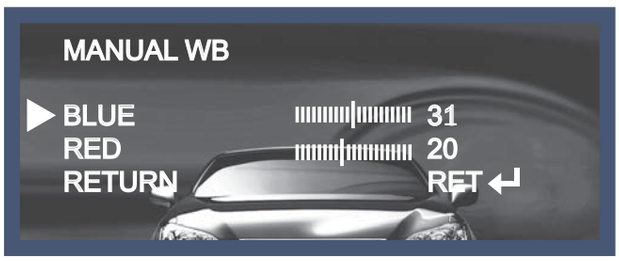
## White Balance

Use the White Balance function to adjust the color of the image.

1. Press **Up/Down** to select White Bal.



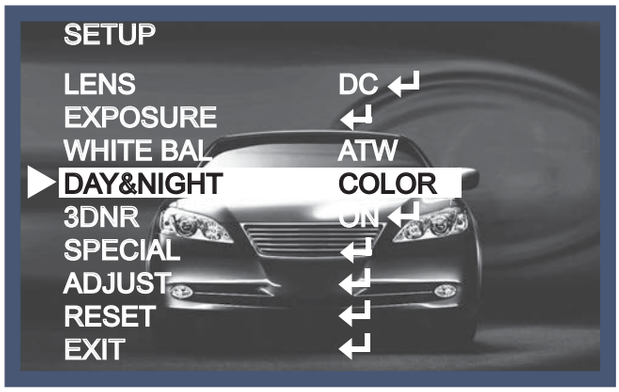
2. Press **Left/Right** to select the best White Balance mode for your installation:
   - **ATW (Auto-Trace White Balance):** Use this mode when the color temperature is between 1,800K to 10,500K.
   - **AWB (Auto White Balance):** Because ATW may not work properly in certain conditions, it is recommended to use this mode if one of the following conditions is present in your installation:
     - » When there is a very high color temperature in the image (above 10,500K; for example, clear sky or sunset).
     - » It is very dark.
     - » If the camera is pointed directly at fluorescent lighting or if there is a drastic lighting change, the operation of white balance may become unstable.
   - **AWC-->SET:** Place a white card in front of the camera lens and then press the **Set Up** button to set the white balance setting. If the lighting condition changes, you may need to re-adjust the white balance.
   - **Manual:** Use the manual option to manually adjust the blue and red levels. Press **Set Up**, then press **Left/Right** to adjust the **Blue** and **Red** levels.



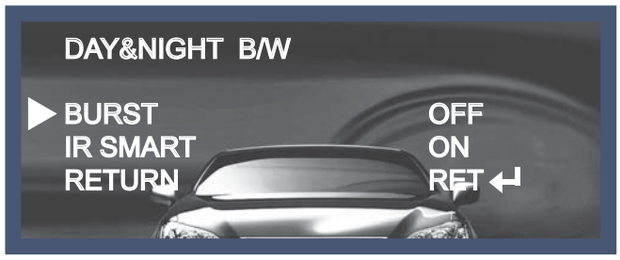
## Day&Night

The Day&Night sub-menu allows you to configure day and night modes.

1. Press **Up/Down** to select **Day&Night**.




2. Press **Left/Right** to select one of the following modes:
   - **Color:** Image will always be in color (day mode).
   - **B/W:** Image will always be in black & white (night mode). Press **Set Up** to enter the B/W sub-menu.

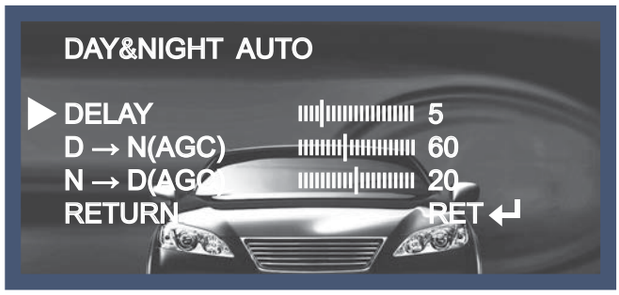



   - » **Burst:** Press **Left/Right** to select **Off** to eliminate the burst signal or **On** to allow the burst signal.
   - » **IR Smart:** Press **Left/Right** to select **On** to enable Smart IR compensation or **Off** to disable. Smart IR will prevent the image from becoming overexposed if objects come too close to the camera at night. If set to On, press **Set Up** to configure the following:
     - » **Value:** Press **Left/Right** to adjust the amount the camera will compensate for IR saturation.
     - » **Area:** Press **Set Up** to adjust the area where the camera will apply Smart IR compensation.
     - » **IR DWDR:** Press **Left/Right** to increase the level of D-WDR that will be applied for Smart IR. This will brighten areas outside of the Smart IR area.

**NOTE**

- Settings changed in the IR Smart menu are saved if you change Day & Night to EXT or AUTO.

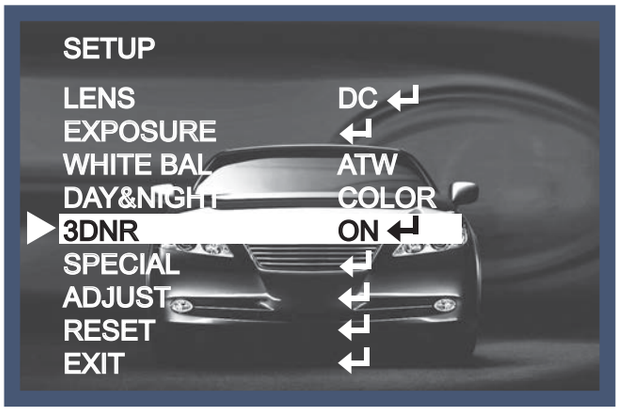
- **EXT (Recommended):** Camera uses the CdS sensor to detect lighting conditions and automatically select between day and night mode. Press **Set Up** to set the **Start Delay** and **End Delay**.
- **Auto:** Camera uses the internal sensor to detect lighting conditions and select between day and night mode. Press **Set Up** to configure the following parameters for auto day/night mode:
  - » **Delay:** Press **Left/Right** to select the delay time before the camera will switch between day and night modes.
  - » **D->N(AGC):** Select the brightness value when the camera changes from day mode to night mode.
  - » **N->D(AGC):** Select the brightness value when the camera changes from night mode to day mode.



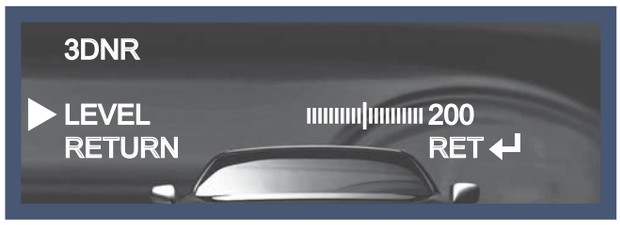

## 3DNR (3D-Digital Noise Reduction)

3DNR allows you to configure 3D-Digital Noise Reduction (3D-DNR). 3D-DNR reduces noise in the image during night mode.

1. Press **Up/Down** to select **3DNR**.



2. Press **Left/Right** to select **ON** to enable 3D-DNR or select **OFF** to disable. If you select **ON**, press **Set Up** to set the compensation level for 3D-DNR between 0~200.



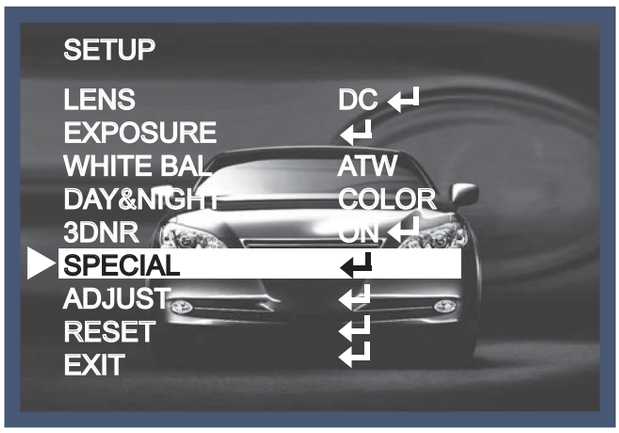

**NOTE**

As the level is increased, the effectiveness of the noise reduction will increase, but ghosting or a softening of the image may occur.

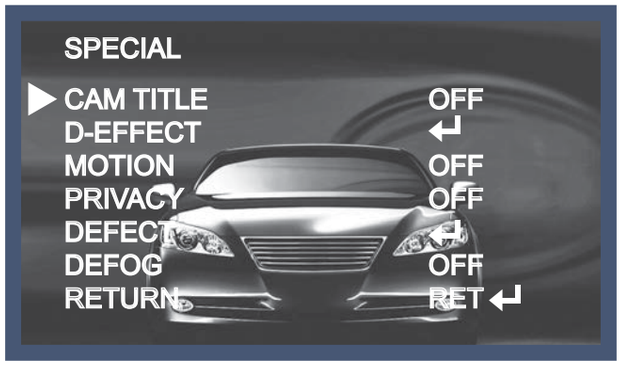
## Special

The Special menu contains miscellaneous camera functions.

1. Press **Up/Down** to select **Special** and press the **Set Up** button.




### The Special menu contains the following functions:



- **CAM TITLE:** Press **Left/Right** to select **OFF** to disable the camera title display on the OSD. Or, select **ON** to enable camera title display and press **Set Up** to configure the camera title. To configure the camera title, do the following:

a. Press **Up/Down/Left/Right** to control the menu cursor.

b. Press **Set Up** to enter the selected character.

c. Use the **<-** and **->** controls to edit the previous character or next character in the title.

d. Select **CLR** and press **Set Up** to erase all characters.

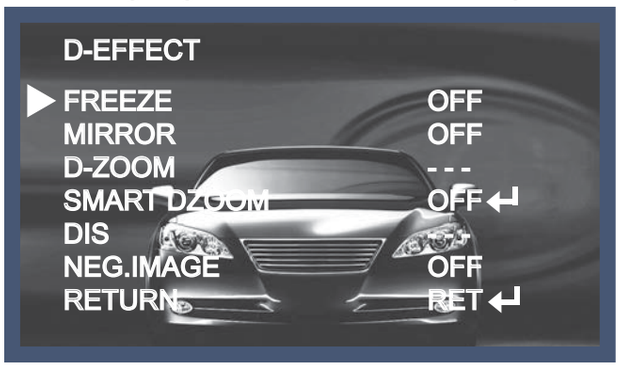
e. Select **POS** and press **Set Up** to configure the position of the camera title. Then, press **Left/Right/Up/Down** to set the position. Press **Set Up** again when finished.

f. Select **END** and press **Set Up** to save the camera title.

**NOTE**

If you want to enter a space or erase a letter, move the cursor on the empty space in front of the number 0 and press Set Up.

- **D-Effect:** Press **Set Up** to open the D-Effect sub-menu. This sub-menu allows you to apply the following digital effects to the image.



» **Freeze:** Press **Left/Right** to select **ON** to freeze the image in place. Select **OFF** to unfreeze the image.

» **Mirror:** Press **Left/Right** to flip the image in one of the following directions:

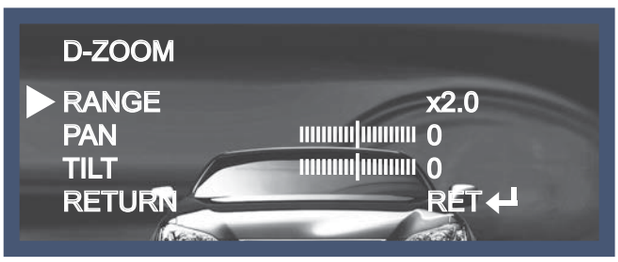
OFF

MIRROR

ROTATE

V-FLIP

» **D-Zoom:** Press **Left/Right** to select **ON** to enable digital zoom or **OFF** to disable. Press **Set Up** to configure the following:




» **Range:** Press **Left/Right** to apply 1x~32x digital zoom to the image.

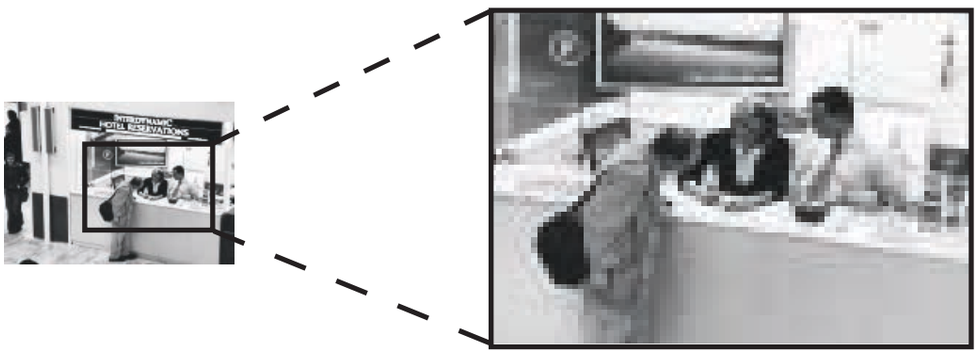
» **PAN:** Press **Left/Right** to move the zoom area left and right.

» **TILT:** Press **Left/Right** to adjust the zoom area up and down.

**NOTE**

- Using digital zoom will decrease the resolution of the image. It is recommended to use the zoom/focus screws to zoom in the image without losing resolution.
- When D-Zoom is enabled, Smart Dzoom, and DIS cannot be used.

» **SMART DZOOM:** Smart DZoom automatically digitally zooms the camera when there is motion detected in a certain area. Press **Left/Right** to select **ON** to enable Smart DZoom or **OFF** to disable. Then press **Set Up** to configure the following parameters:



» **Range:** Press **Left/Right** to apply 2x~5x digital zoom to the image.

» **Position:** Press **Set Up** and then press **Left/Right/Up/Down** to adjust the zoom area. Press **Set Up** to confirm the area.

» **Sensitivity:** Press **Left/Right** to adjust the sensitivity of motion detection for Smart DZoom.

» **Time:** Press **Left/Right** to adjust the time the camera will maintain the zoom before zooming out.

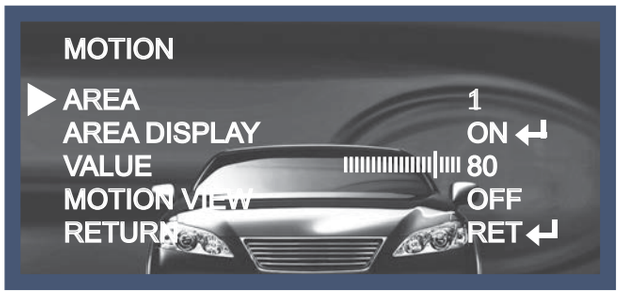
» **DIS (Digital Image Stabilizer):** DIS compensates for unclear images caused by windy conditions or vibrations in the installation area. Press **Left/Right** to select **ON** to enable DIS or **OFF** to disable.

**DIS OFF**

**DIS ON**

» **Neg. Image:** Press **Left/Right** to select **ON** to invert the colors in the image (makes the image look like a photo negative). Or select **OFF** for a normal image.

- **MOTION:** You can set motion detection to highlight specific areas of the screen when motion is detected. Press **Left/Right** to select **ON** to enable motion detection or **OFF** to disable. If you select **ON**, press **Set Up** to configure the following parameters:

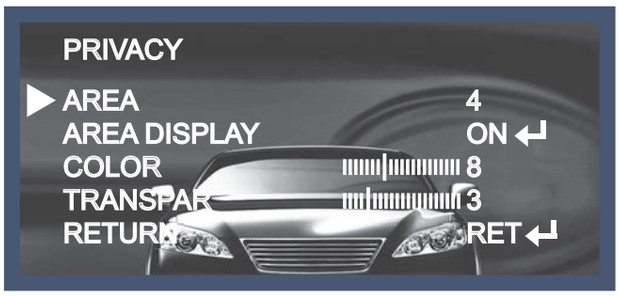



**TIP**

- Motion detection settings are generally set separately on the DVR, where they can trigger motion recording or other actions.

  - » **Area:** Press **Left/Right** to select areas **1~4**.
  - » **Area Display:** Press **Left/Right** to select **ON** to enable the selected area or select **OFF** to disable the selected area. To configure the area:
    a. If **ON** is selected, press **Set Up**.
    b. Press **Left/Right/Up/Down** to configure the position of the motion area and then press **Set Up** to confirm.
    c. Press **Left/Right/Up/Down** to configure the size of the motion area and then press **Set Up** to confirm.
    d. Press **Set Up** again to save changes.
  - » **Value (Sensitivity):** Press **Left/Right** to adjust the sensitivity of the motion detection. The higher the setting "Value" is, the higher the sensitivity for motion.
  - » **Motion View:** Press **Left/Right** to select **ON** to show highlights on the monitor when the camera detects motion in the motion areas.

- **Privacy:** This allows you to hide up to 8 privacy areas on the monitor. **Areas designated as privacy areas will not be recorded.** Press **Left/Right** to select **ON** to enable privacy areas or **OFF** to disable. If **ON** is selected, press **Set Up** to configure the following:




» **Area:** Press **Left/Right** to select privacy area **1~8**.

» **Area Display:** Press **Left/Right** to select **ON** to enable the selected area or select **OFF** to disable the selected area. To configure the area:

a. If **ON** is selected, press **Set Up**.

b. Press **Left/Right/Up/Down** to configure the corners of the privacy area and then press **Set Up** to go to the next corner.

c. Press **Left/Right/Up/Down** to configure the position of the privacy area and then press **Set Up**.

d. Press **Set Up** again to save the privacy area.

» **Color:** Press **Left/Right** to select color **0~15**.

» **Transparency:** Press **Left/Right** to set the transparency of the motion area between **0~3**.

• **Defect:** Use the Defect setting to remove white spots (defects). The camera can eliminate up to 256 points. Press **Set Up** and then configure the following.

» **Senseup:** Press **Left/Right** to set the level of defect elimination. 32x is recommended.

» **Diff:** Press **Left/Right** to set the size of defects between 0~3.

» **Start:** Select **Start** and press **Set Up** to start defect correction.

• **Defog:** The Defog feature improves the picture of objects obscured by fog or dust. Press **Left/Right** to select **Manual** or **Auto** to enable or **OFF** to disable.

DEFOG OFF

DEFOG ON

» **Auto:** Automatic defog settings. Press **Set Up** and then press **Left/Right** to adjust the Detect Level. A higher level will increase the compensation for heavier fog.

» **Manual:** Manual defog settings. Press **Set Up** to configure defog settings.

## Adjust

This function is needed to control the brightness of the monitor.

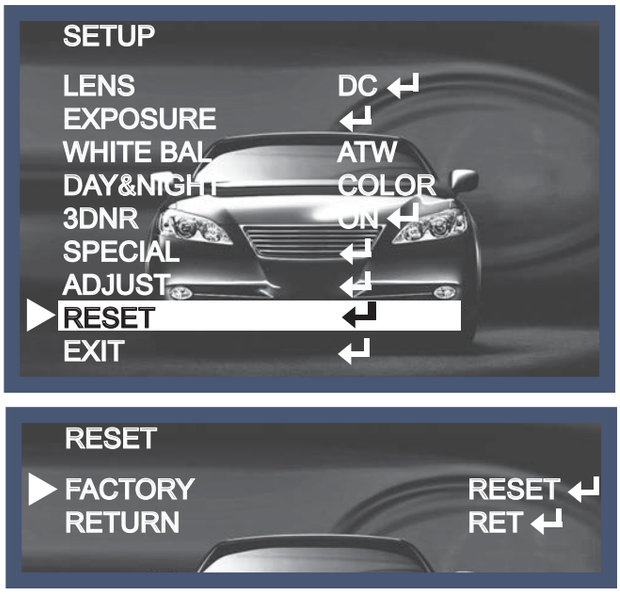
1. Press **Up/Down** to select **Adjust** and then press the **Set Up** button. Configure the following:

- **Sharpness:** Press **Left/Right** to adjust the sharpness of the image, as needed. Increasing sharpness will make the outlines of the image more distinct.
- **Monitor:** Press **Left/Right** to select one of the following, depending on the type of monitor you have.
  - » **LCD:** Recommended if you are using an LCD monitor. Press **Set Up** to configure the **Gamma**, **Level**, **Blue Gain**, and **Red Gain**.
  - » **CRT:** Recommended if you are using a CRT monitor. Press **Set Up** to configure the **Level**, **Blue Gain**, and **Red Gain**.
  - » **User:** Custom monitor settings. Press **Set Up** to configure the **Gamma**, **Level**, **Blue Gain**, and **Red Gain**.

## Reset

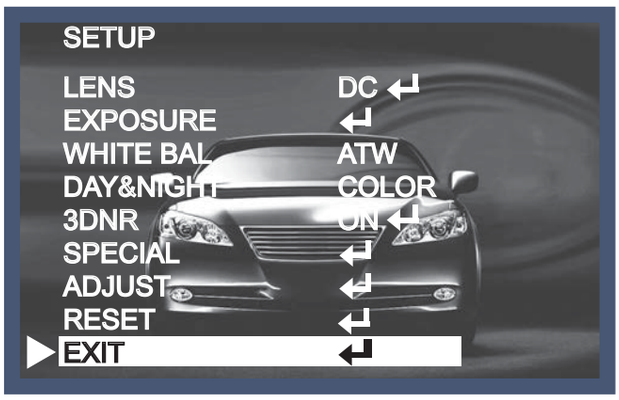
Use the Reset function to reset the camera to factory default settings. This is recommended if you end up with an unclear or unsatisfactory picture due to setting changes.

1. Press **Up/Down** to select **Reset** and press **Set Up**.
2. Press **Up/Down** to select **Factory** and press **Set Up**.




## Exit

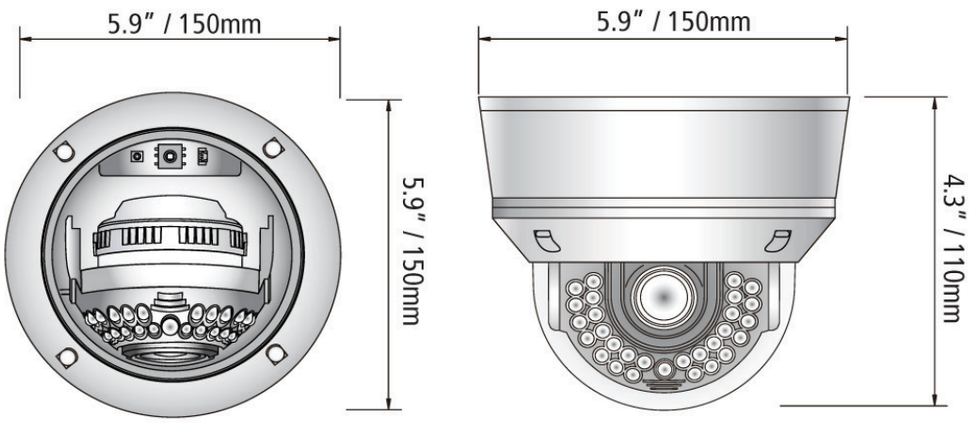
Press **Up/Down** to select **Exit** and press **Set Up** to save the current settings and exit the OSD menu.



# Specifications

| | DPV74TLUX |
|---|---|
| Sensor Type | 1/3" Sony Exview HAD 960H CCD |
| Effective Pixels | 976 (H) X 494 (V) |
| Total Pixels | 1020 (H) X 508 (V) |
| Resolution | 700+TVL |
| Scanning System | 2:1 Interlace |
| Minimum Illumination | 0.01 LUX @ F1.2<br>0 LUX /w IR LED on |
| Video Output | 1.0Vp-p Composite @ 75 Ohms |
| S/N Ratio | 52db @ AGC off |
| Lens | 3.5mm~16mm F1.2 Varifocal DC Auto Iris |
| Power Source | AC 24V +10% |
| Power Consumption | 7W without heater<br>18W with heater |
| Minimum Power Requirement | 290mA without heater<br>780mA with heater |
| Power Input | 2-pin terminal block detachable |
| Communication | Coaxial I/F (UTC)<br>UTP |
| IP Rating | IP67 |
| Operating Humidity | Within 95% RH |
| Operating Temperature | -40~122°F / -40~50°C |
| Weight | 2.2lbs / 1.0kg |

## Dimensions



# Troubleshooting

| PROBLEM | POSSIBLE CAUSE |
|---|---|
| Nothing appears on the screen. | • Check the power and video connection to the camera.<br>• Ensure sufficient power is being supplied to the camera. |
| The image on the screen is unclear. | • Adjust the lens zoom and focus.<br>• The lens cover is dirty. Clean the lens / glass with a soft clean cloth.<br>• Reset the camera to default settings.<br>• If the camera is facing a very strong light, move the camera to a different position.<br>• Ensure DZOOM is not enabled. |
| The image on the screen is dark. | • Adjust the brightness and contrast controls on the monitor/DVR.<br>• If there is an intermediate device, ensure it is set to 75Ω/Hi z. |
| The image is overexposed at night. | • Turn the LED Level screw to the left to reduce the power output to the IR LEDs. It is recommended to fine tune the LED Level to find the best setting. |
| The camera is not working properly and the surface of the camera is hot. | • Check the camera is correctly connected to an appropriate regulated power source. |
| The color of the picture is not correct. | • Make sure that the camera isn't facing direct sunlight or fluorescent lighting. If necessary, change the camera position. |
| The SENSE-UP does not work. | • Check that the AGC setting in the EXPOSURE menu isn't set to OFF.<br>• Check the EXPOSURE menu and make sure SHUTTER is set to AUTO or 1/60. |

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# Need Help?

**Please make sure to visit our website www.digimerge.com to receive product updates and information.**

## 3 Easy Ways To Contact Us

**Online:**
Product support is available 24/7 including product information, user manuals, quick start up guides and FAQ's at www.digimerge.com

**By Email:**
Technical support (for technical/installation issues)
tech@digimerge.com

**By Phone:**
North America: 1-866-816-5919
Technical support (for technical/installation issues)
Mon-Fri 8.00 am to 8.00pm EST

We welcome your feedback at
**info@digimerge.com**

For more information, visit
**www.digimerge.com**